

## REMARKS

In the Office Action of December 20, 2004, the Examiner objected to several informalities, which objections were overcome by the above amendments. The Examiner also rejected claims 48 and 86 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 - 49 of U.S. Patent No. 5,853,370. Applicants respectfully disagree with this rejection if again applied to the pending claims.

As amended, the present invention is directed to a system and a method for imaging the **prefrontal cortex** of the brain before and after stimulation. This was previously claimed in the dependent claim 74 and 83 (now amended).

The specification of U.S. Application 713,401, filed on September 13, 1996 (now Patent No. 5,853,370) describes several different inventions. This specification expressly describes a system and a method for stimulating and then imaging the prefrontal cortex of the brain and the measured results are shown in Figs 5A, 5B, 5C and Figs 6A, 6B, 6C. This invention is presently claimed in the pending claims 48 – 86, but was not claimed in the claims 1 - 49 of U.S. Patent No. 5,853,370.

No prior art of record discloses an optical system or method for imaging the prefrontal cortex of the brain before and after stimulation, as claimed in the pending claims 48 – 86. Therefore, the judicially created doctrine of obviousness-type double patenting of the pending claims 48 – 86 with respect to U.S. Patent No. 5,853,370 should be withdrawn.

Accordingly, all pending claims are in condition for allowance and such action is respectfully requested.

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Respectfully submitted,



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The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

May 20, 2005



Ivan D. Zitkovsky